

GRANDIN'S RED FLAG FEEDS



Methods of Feeding

FALL ISSUE 1923



D.H.GRANDIN MILLING CO. & JAMESTOWN, N.Y.



EXPERT ADVICE ON POULTRY AND DAIRY PROBLEMS



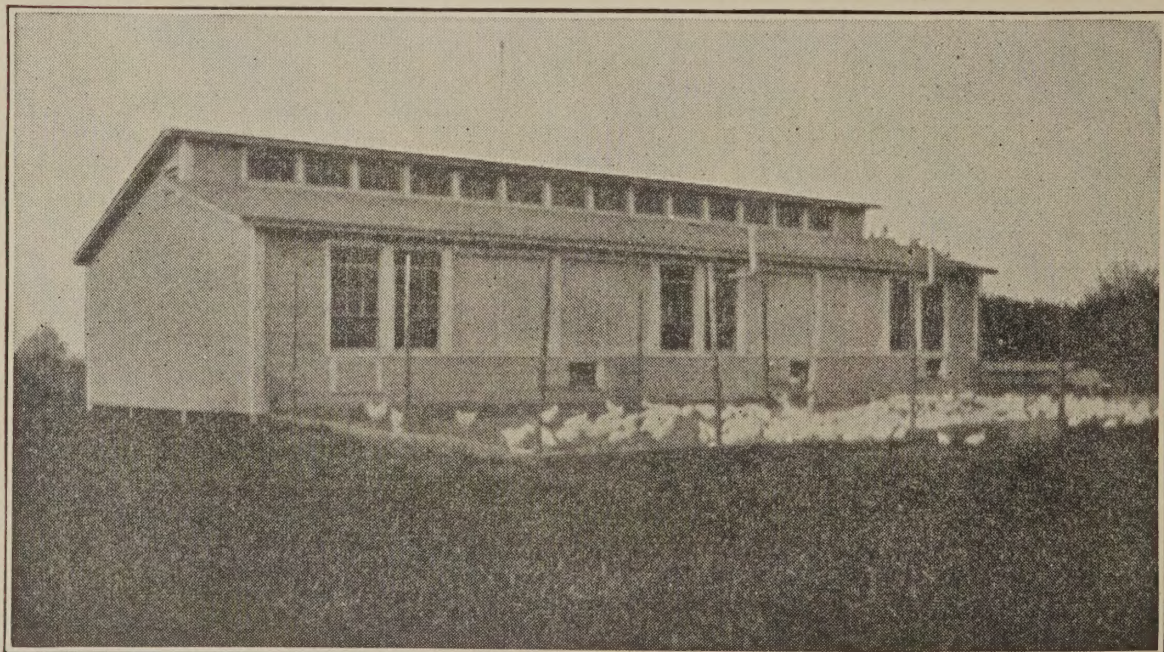
THIS service is free of charge and we would like very much to have you take advantage of our Information Department as often as occasion arises. Your individual problems will receive the careful personal attention of an expert.

Mr. C. I. Davis, 31 Kelsey St., Waterville, Me. is in charge of our poultry information department and Mr. E. W. Bartlett, South Portland, Me. looks after the dairy inquiries. Send your letters either direct to these men or to us and let us help you solve your problems.

In editing this book, we have carried the same thought in mind, i. e. to give you a real service. Nothing but good practical information is set forth and we trust that you will derive considerable benefit from the various articles.

Yours truly,

D. H. GRANDIN MILLING CO.



This is one of the new laying houses built by Guy M. Batchelder, Oakland, Me., breeder of heavy laying Rhode Island Reds and White Leghorns.

GRANDIN'S RED FLAG FEEDS are used exclusively.

ALL QUESTIONS GLADLY ANSWERED



SYSTEM FOR POULTRY FEEDING



Do not feed chicks for 48 hours. While they will pick at anything bright and sparkling, they really crave very little food until they are 48 hours of age, and feeding before really does more harm than good.

Place before them fresh water with the chill off, fine chick grit or sand and chick size charcoal, also sifted coal ashes, and if you have sour milk or bonny-clabber milk give them this from the very first. There is nothing better made for chicks than sour milk, first, last or all the time.

Their first feed should be **GRANDIN'S RED FLAG BUTTERMILK BABY CHICK STARTER**. Keep this before them all the time in Baby Chick Feed Hoppers, so that they may help themselves. After the third day feed them a little **GRANDIN'S RED FLAG BABY CHICK FEED** three times a day in the litter to encourage exercise. The Grandin's Buttermilk Starter should be fed for 5 or 6 weeks, then changed to Grandin's Growing Feed. If possible, something in the way of green food should be fed, such as lettuce, cabbage, sprouted oats, Kale, Swiss Chard, and very young chicks are fond of fresh sod.

At the beginning of the sixth or seventh week **GRANDIN'S INTERMEDIATE CHICK FEED** may be substituted for the **BABY CHICK FEED**, but **GRANDIN'S GROWING FEED** should be kept before them until the pullets drop their first eggs, then this may be changed to **GRANDIN'S POULTRY DRY MASH with BUTTERMILK**. At about the tenth week the **GRANDIN'S INTERMEDIATE CHICK FEED** may be changed to **GRANDIN'S SCRATCH FEED**.

Use a number of feed boxes for **GROWING FEED** so that the chicks will not crowd and can get all that they want at any and all times. Feed the **BABY CHICK, INTERMEDIATE OR SCRATCH FEED**, only three times a day, and in a litter. After the pullets are laying regularly, feed **GRANDIN'S SCRATCH FEED** only once a day about one hour before roosting time.

GRANDIN'S RED FLAG DRY MASH with BUTTERMILK (The REAL EGG MAKER) should be kept before the hens and pullets all the time in one or more feed hoppers so that they can have as much as they want and when they want it.

GRANDIN'S RED FLAG SCRATCH FEED should be fed, about a quart to 12 or 15 hens, once a day preferably at night just before going to roost. In winter a small amount should be given in the morning in the litter. This will start them working and make them hungry for the **REAL EGG MAKER, RED FLAG DRY MASH with BUTTERMILK**.

D. H. Grandin Milling Co.
Jamestown, N. Y.

South Paris, Me., May 21, 1923.

Gentlemen:

I have used your full line of Poultry Feeds and am satisfied it is the best feed on the market from the results I get in its use. I have seven hundred chickens that show the best condition possible—and this is not a good season for "chick" raising as many will tell you.

Yours truly,

OSCAR LEIGHTON.

STICK TO THE RED FLAG FEEDING SYSTEM

SAFETY



FIRST

GRANDIN'S RED FLAG DRY MASH WITH BUTTERMILK THE REAL EGG MAKER

SAFETY FIRST. There is no place where these two words mean more to the poultry breeder than in selecting a laying mash for his flock, as it is this feed that links good stock with good care and spells profit in the poultry business both for the back lot poultry breeder and the commercial poultry farm.

The "**SAFETY FIRST**" laying mash contains the best quality of ground grains, meat, fish, bone, dried buttermilk and green cut alfalfa. Any laying mash which lacks any of these is not health-giving nor egg-producing, both of which are essential to success in poultry keeping.

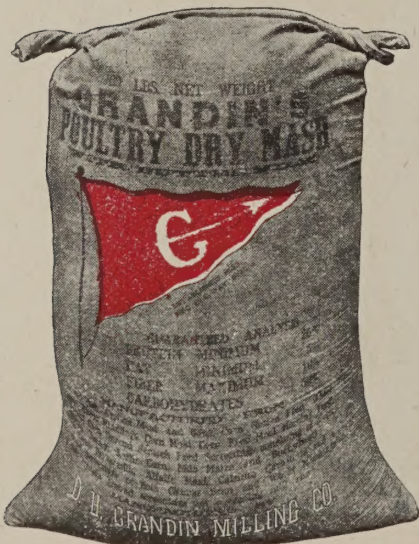
GRANDIN'S RED FLAG DRY MASH WITH BUTTERMILK is the "**SAFETY FIRST**" laying mash as it contains the proper proportions of these ingredients. The very best quality of each obtainable is used and this can be absolutely depended upon in each and every bag.

When you **INSIST** on **GRANDIN'S RED FLAG DRY MASH** you are playing safe always. In asking your dealer for a dry mash, **DON'T** say that you want a bag of dry mash, but say **GRANDIN'S RED FLAG** as this is **SAFETY FIRST**.

Mrs. H. A. Daniels, Grafton, Mass., breeder of trap-nested Single Comb Rhode Island Reds, pedigree bred for over six generations for high production and standard qualities, in a letter to Earl C. Randall, Rockland, Me., suggested that he learn the address of the nearest dealer handling **GRANDIN'S** feeds, saying that these poultry feeds are simply great. Part of Mrs. Daniels' letter read as follows:

"At the request of the firm we put in a check pen last fall. The results to date have been so very satisfactory that we are changing over from the ration we have used for six years and as soon as our present supply of material is exhausted, our entire flock of pedigree Reds will be fed on **GRANDIN'S FEED**. The

results are what count with us. Health, good production, highly hatchable eggs—hence you may be sure we would not make this change were we not positive the feeds are absolutely right."



RED FLAG DRY MASH, THE REAL EGG MAKER

PLAY



SAFE

GRANDIN'S RED FLAG SCREENED SCRATCH FEED

PLAY SAFE! In these days of keen competition, the poultry breeder needs to give careful consideration to the selection of a scratch feed for his flock for, in a great measure, the health and production is dependent upon the quality of this feed.

The poultry breeder who wishes to play safe, **INSISTS** on **GRANDIN'S RED FLAG SCREENED SCRATCH FEED** as it is the cleanest Scratch Feed on the market. The **QUALITY** is the **BEST** always and this same **QUALITY** will be found in each and every bag.

A variety of grains more fully nourishes the many complicated parts of the bird's anatomy, and results in healthier and stronger fowls with increased vitality. Laying hens are more subject to disease, acquire pernicious habits of egg eating, feather pulling, etc., simply as a result of the natural craving of an appetite unsatisfied. Given a carefully balanced ration they acquire none of these bad habits.

GRANDIN'S RED FLAG DRY MASH and **SCREENED SCRATCH FEED** are carefully balanced to niche into one another for health and egg production.

Variety and Quality are the essentials for best results in a Scratch Feed. Cracked corn or cracked corn and oats do not make a scratch feed. Although it would be necessary for the hens to scratch if this were fed in a litter the necessary variety is lacking. Furthermore, practically all the cracked corn obtainable contains meal and hulls which increases the cost of this feed.



We compound our feeds for the purpose of getting results, and not for working off of by-products. Keep in mind when you buy **RED FLAG SCRATCH FEED**, that every kernel is sweet and clean, and that only the very best materials obtainable are used in its manufacture.

RED FLAG SCRATCH FEED should be fed, about a quart to 12 or 15 hens, once a day preferably at night just before going to roost. In winter a small amount should be given in the morning in the litter. This will start them working and make them hungry for the **REAL EGG MAKER, RED FLAG DRY MASH** with **BUTTERMILK**.

REAL QUALITY, RED FLAG SCRATCH FEED



A FATTENING FEED FOR BROILERS, ROASTERS AND CAPONS



Marketing thin, unfinished birds is wasteful and the sale of such birds has an unfavorable effect on the market. The consumption of table poultry would be greatly increased if fowls never went to market in poor condition. There is always a demand for good birds, whatever their age, if they have been properly fed and finished.

All over the country there are packers who buy common range-fed birds, feed them properly for a fortnight and sell them as milk-fed, making more profit on their two weeks' care than the poultryman does in months. Marketing thin birds is wasteful and unbusinesslike, for the flesh put on by mixing **GRANDIN'S RED FLAG GROWING FEED** with **BUTTERMILK** and **CORN MEAL 50-50** cost less than any other grains in weight and a better price per pound is obtained.

Broilers are young, plump chickens, weighing, when dressed, from three-quarters of a pound to two pounds, and are usually killed when from six to ten weeks old. The raising of broiler chickens until the finishing period is reached is practically the same as the raising of chickens for other purposes. The main point is to keep them growing rapidly by full feeding of **GRANDIN'S RED FLAG GROWING FEED**.

For roasting, a young fowl about full grown, is used, and to roast satisfactorily, it must be moderately fat. The greatest demand is for small roasters weighing 4 or 5 pounds each, though the demand for large roasters weighing 8 or 9 pounds each is steadily increasing. Yellow skin and yellow legs are more generally demanded than a white skin and dark legs.

A capon is a castrated male bird. After being caponized the bird becomes more quiet, is more readily fattened, the comb and wattles cease to grow, and the plumage becomes heavy and glossy. The capons should be fed **GRANDIN'S RED FLAG GROWING FEED** and not the **FATTENING FEED** until about three weeks before marketing.

Birds of any age which are culled from the flock should be kept in close confinement and fed with **GRANDIN'S RED FLAG GROWING FEED** with **BUTTERMILK** and **CORN MEAL 50-50**, so that the muscles will be softened and fat deposited in the muscular tissues instead of in solid chunks of fat in the abdomen. The gain will cost less than that secured at any period of growth. Frequently two weeks of fattening will more than double the producer's profit.

Penned fowls make better gains than those yarded, but less than if fattened in crate, because of the exercise. Pen-fattening takes more floor space than crate-fattening. Not over fifty birds should be kept in a pen, and about a square foot and a half of space should be allowed for each bird. There should be just sufficient light for the birds to see to eat. The darker the pens, the more contented the birds will be; but the pens must be well ventilated and clean.

In crate-fattening there will be an additional eight to ten per-cent of increase and the flesh will be of better quality. The crates used for fattening should have slatted or wire bottoms which will permit the droppings to fall thru. Their food is fed in troughs in front of the crates.

Mix **GRANDIN'S RED FLAG GROWING FEED** with **BUTTERMILK** and **CORN MEAL 50-50** with water or milk and feed three times a day all they will clean up. Do not water. The mixture will contain moisture enough. From 10 to 14 days should be allowed for fattening.

PROPER FATTENING SPELLS PROFITS



MARKET GRADE OF EGGS



While there is no well established system of grading eggs which can be said to hold good in all markets, fresh gathered eggs will usually be graded as follows: extras, number ones; number twos, pullets and dirties.

Extras are eggs weighing not less than twenty-four ounces per dozen, are uniform in size, strictly fresh, and have a clean, sound shell. If the egg is white it must be free from tinting, if brown it must be dark brown.

Number ones should weigh at least 22 ounces per dozen, the shell should be sound and clean and the air cells not more than one-half inch. The white should be so firm and while the yolk is visible it should neither be out of place or stuck to the shell, and fairly uniform as to size and color.

Number twos are eggs that weigh between 20 and 22 ounces, should be clean and sound-shelled and fit for food. Such eggs may be watery or have heavy yolks or some other disqualification for the other grades. Eggs that are slightly heated, show large air cells, or have slightly stained shells are classed as seconds.

Pullets, this class includes eggs that weigh less than 20 ounces per dozen.

Dirties, this class includes the eggs with badly soiled shells and those that are cracked or washed.

There are a few miscellaneous terms that are used in the egg market and are considered in grading market eggs. "Cracks" are eggs in which the shells are cracked but which have not started to leak. "Leakers" are those that are cracked badly enough so that they have begun to leak their contents. "Spots" mean that due to some bacterial growth, lumps or spots have formed within the egg. "Blood rings" means that the egg is fertile and has been incubated long enough to start a very slight growth. "Rots" are eggs that are not fit for food.

Quality is just as necessary in market eggs as in anything else and the poultry keeper that wishes to make the most of his flock will surely make an effort to produce extras if possible and certainly would not think of producing market eggs that grade less than number ones.

The feeding and care which the hens receive has a decided influence upon the quality of the eggs laid. When a hen is in the pink of physical condition she will lay the largest proportion of eggs that will class as extras.

In order to produce a high percentage of eggs that will grade as extras the laying hens must be fed upon a ration that is well balanced with regard to fat and protein elements so that the hen can keep in good physical condition and have the right materials for making full sized eggs. **GRANDIN'S RED FLAG DRY MASH with BUTTERMILK** is well balanced and contains the right materials in the right proportion. Each ingredient is of the very best quality obtainable and this assures the poultry keeper of getting the best quality eggs.

In grading eggs it is hardly necessary to state that quality comes first. By this we mean absolutely New Laid Eggs, full, strong bodied, sweet, clean and free from blood rings, meat or blood clots, shrinkage, in fact, any defect that would be detrimental to their taste or appearance.

A fresh egg has practically no odor, although some eggs when laid may have a distinct odor due to the food given the fowls.

The flavor of a strictly fresh and wholesome egg is difficult to define. But those who are producing eggs under wholesome conditions know what a fresh egg tastes like. They also know when an egg is off-flavor. The flavor is affected by the food which laying birds receive, as for instance if onions or putrid articles are fed to the fowls the eggs will have a distinct flavor, therefore it is very important to carefully examine the laying mash to see that it does not have a rank odor, if it smells like fertilizer it is not a proper food for the laying hens. Only the cheap grades of meat and fish meal have this rank odor. The **GRANDIN RED FLAG DRY MASH with BUTTERMILK** contains the very best quality of ground fish and meat obtainable, which is so essential in producing first quality eggs.



IS THE HOUSE READY FOR THE HENS?



Was your hen coop too cold last winter, was it damp, so damp that the walls were often wet? Did the birds suffer frozen combs and wattles? Do the hens get plenty of light during the day? Is there enough space for the flock you wish to keep this winter? These, and many similar questions, if properly answered and put into practice, would aid materially in getting eggs this winter. We'll warrant that any one can fix his coop up to meet these conditions with very little expense, if he has not already done so. The trouble is that many of us wait until it is too late and winter sets in and then we say, it's no use, and consequently the hens must live in discomfort all winter.

September or October is the time to make a personal examination of the winter quarters for the flock, delay may cost you some money and valuable experience in poultry raising.

It is quite possible that if you cover the inside of the walls with building paper, you could turn your coop from one that is too cold to one that is just about right. You are the one who should know this from your experience last winter. It might help also to bank it around the outside with straw, especially on the north side. This is an easy job and does not cost much. Leaves will also answer this purpose.

It is really strange that so many hen houses have been built to shut out the sunlight, the very thing which is so desirable for a flock that has to be housed through the long northern winters. Sunlight warms the house in the day time and adds cheer to it. It makes conditions seem more like spring and it helps to get the pullets started in laying, and besides these important things, it keeps the house in a more sanitary condition. If yours is an old style coop, cut some more windows in the south wall, and possibly drop those which are already there so as to allow the sunlight to strike the floor.

If you are crowded for feeding space it might be well to consider putting in a dropping board underneath the perches. This not only adds more space but it helps a great deal in keeping things clean.

How to properly ventilate one's poultry house is a problem everyone keeping hens must solve. Hens, like human beings, take cold easily in too close or too open house. A happy medium must be found.

If the house is built practically air tight on three sides, at least one-third of the windows in the south (front) side of the building should be covered with muslin or burlap; this permits ventilation but breaks up drafts.

On every warm, sunny day, during the cold months these windows (which should be hinged or arranged to slide up and down easily) should be thrown open after the sun is a couple of hours high, and lowered at least an hour before sunset so as to give the pen a chance to warm up before the hens go to roost.

During the night the cloth windows should be closed tight, but gentle ventilation still takes place. One must use his judgment in regulating the ventilation.

It pays well to look after ventilation, for upon it may hang the story of success or failure of one's poultry venture. To admit plenty of fresh air, and dismiss the foul air without drafts to harm the fowls, is the correct solution of this problem.

Damp, dark quarters often are one of the main causes of lack of thrift, disease, and loss among fowls on the average farm. Filth and dampness cause a large percentage of the colds, roup, and most of the other diseases that ravage the farm flock. Coldness is not nearly as destructive as dampness, for dampness seems to work through the feathers of the fowl, and produces a creepy, chilly sensation, that is not at all pleasant. Fowls can stand plenty of fresh air and ventilation so long as it is dry cold.



FORCE NATURAL MOULTING

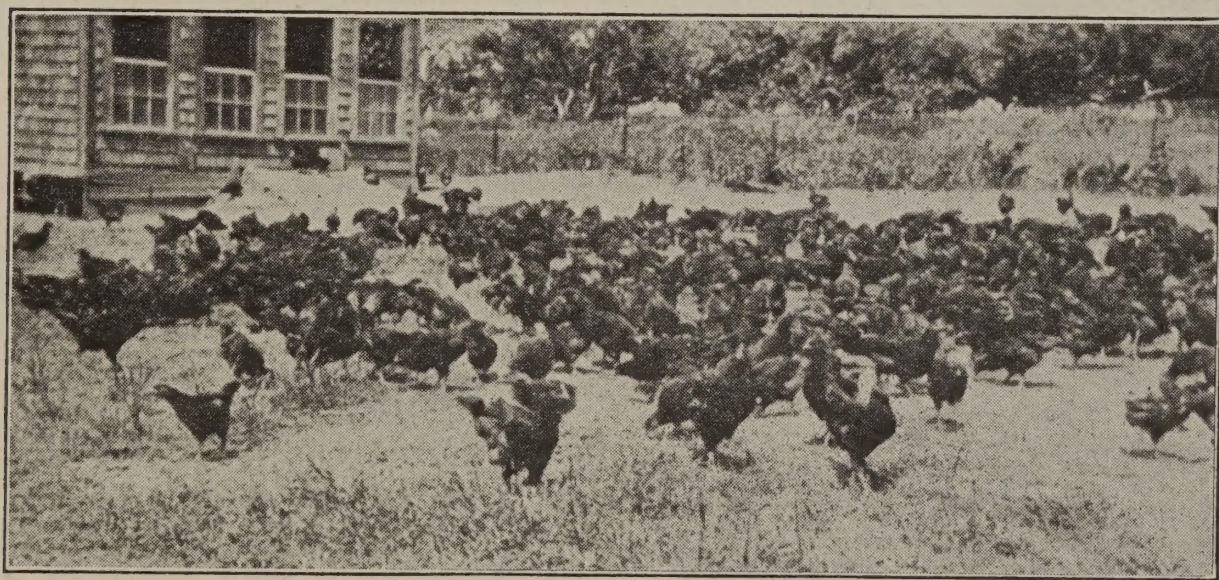


How to get hens to moult early and be ready for winter laying is a problem that has been much discussed. Some advise to starve the hens for a couple of weeks and then begin to feed them feather producing foods. We do not like the idea, and do not believe it ever produced any better results than letting the hens take their own course about it.

Now be believe, in fact we know from personal experience, there can be some forcing done by means that will not depreciate the hens' vigor in the least.

As the summer warms up it is the nature of the hen to shed her feathers if conditions are perfectly normal. If they are not normal she will delay the shedding until she is in the proper condition to produce the new coat. Now anything that we can do to put her into condition to make feathers will prepare her to moult.

After a long season of laying a hen is very naturally run down unless the proper food and care has been given to prevent it. In this run down condition she will not be ready to begin moulting until she has become built up to normal. Here we have the solution. Feed a well rounded ration containing plenty of bone and feather producing foods. This can be found in **GRANDIN'S RED FLAG GROWING FEED with BUTTERMILK**, the same that you feed growing chicks. It is one of the very best combinations of feed for moulting hens that is made. If you feed **RED FLAG GROWING FEED with BUTTERMILK**, the moulting is done so gradually that you hardly suspect it, unless you take notice of the scattered feathers that cover the ground. In the fall you begin to wonder when the hens are going to moult and get ready to lay, when all at once you awaken to the fact that they already have on their new coat of feathers, as smooth and pure as you could wish. This is nature's way of forcing the moult.



A part of 3,000 chicks raised on Grandin's Buttermilk Starter and Chick Feed at the Red Feather Farm, Norway, Maine. Mr. Harry Goodwin, the owner, says that they are the finest bunch of chicks he has ever raised. (See testimonial on page 12.)



THE GRANDIN RED ROOSTER



In the Poultry Show at the Waterville Fair
Were many fine birds, both common and rare.
There were black, white, and barred, some silver and red,
Houdans and Polish with crests on their heads.
But the king of all in that great Poultry Show
Was a large Red Cock who'd fearlessly go
All around through the crowd in a lordly way,
And trying his best to everyone say,
"Good morning friends," I'm **GRANDIN'S** ad, Don't you see
It was on these fine grains I grew to be
A large Red Rooster, healthy, hearty and strong.
I am the Cock of the roost where I belong,
And upon my back, you can see a Red Flag
That my master cut from a **GRANDIN AD.**
If you don't know **GRANDIN'S** Feeds are the best,
Why not buy a bag at once and give it a test.
So wherever the **RED FLAG** you chance to see
Remember it's **GRANDIN'S** and think of me.

ELLA S. DAVIS,

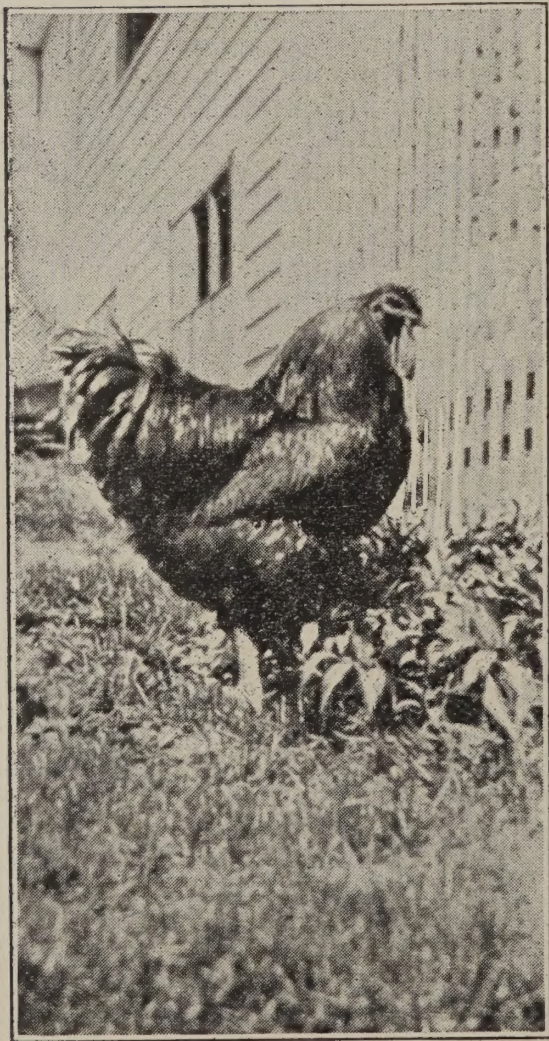
Warren, Me., R.F.D. No. 2.

Value of Poultry Shows

There is probably no one factor that plays a more important part in the poultry industry than the poultry show. It has, no doubt, done more to advance interest in breeding more and better stock than has any other agency. The winter poultry show season is rapidly approaching. It is the duty of every poultry fancier to make an exhibit at least, at one poultry show.

Many breeders do not exhibit at the winter shows, believing that it does not pay, figuring it upon a basis of direct financial returns. They figure that the expense of shipping birds to the fair is more than the premium money that will be derived. They fail to figure that by having their poultry on display at the show, their birds are being seen by a great many interested people, many of whom may be prospective buyers of either stock or eggs for hatching. The advertising that a breeder derives from a display of his best birds at the show is worth many times more than the expense of sending them.

By showing a string of good birds one has a better opportunity to make sales than by merely advertising in a paper, because the breeder not only has his birds to show but if he attends the show himself, he meets his prospective buyer face to face and in that way he may explain the qualifications of his stock to people who are interested.



This is the way the rooster spoken of above appears when "off duty."

LIFE



MEMBER

MEMBER
R. I. RED CLUB

H. A. DANIELS

DANIELS' PEDIGREED S. C. REDS

Trapnested, Line-Bred and Pedigreed for Eggs, Type and Color.

"SATISFACTION GUARANTEED"

FREE SERVICE BUREAU
(MRS. DANIELS)

GRAFTON, MASSACHUSETTS

April 24, 1923.

D. H. Grandin Milling Company,
Jamestown,
New York.

Gentlemen:-

The progress of the Grandin Test pen is very interesting. The production has run parallel with that of the birds on the Daniels ration. Fertility and hatchability of the eggs have been equal. Eggs have been shipped all over the country with those from pens on our own feeding ration and results have been exactly as good as other pens. One instance; A setting of eggs from Pen 7 (the Grandin Pen) and Pen 9 (on our own feeding schedule)-- 7 eggs from Pen 7 and 8 from Pen 9 was shipped to middle Ohio. Customer reported 13 chicks from 15 eggs, 6 from Pen 7 and 7 from Pen 9. 100% fertile from pen 7 the Grandin Pen.

The young stock on the Grandin feeds, being started on the baby starter, and from that put on the growing mash when about one month old are the admiration of every visitor to our plant. The best chickens we have ever raised. Full of vitality, good bone growth, sturdy legs, bright, alert eyes bodies showing solid flesh well covered with close feathers of fine texture. In a nut shell they are chicks showing the nearest to 100% perfect development we ever saw.

A professor from Amherst Agricultural College visited our place recently. He said many rations this year did not contain bone making elements for proper development and the consequence an unusual number of chicks 'off their feet'. He remarked on the sturdiness of our chicks and said they surely were having the right feed and care.

Many people who see these beautiful chicks are much impressed with the quality of our stock. While we are free to admit that our breeding work has had much to do with it we never lose sight of the fact that the breeding is only a part in the success with any stock. There are three elements in the proper results with poultry. Breeding! Feeding! Care.

Very truly yours,

Herbert A. Daniels

HAD/P

Join the Red Club. Subscribe for the Red Journal.

POULTRY ACCOUNT FOR SEPTEMBER, 1923



EXPENSES			Amount rec'd from sale of eggs		
Grandin's Poultry Dry Mash			Poultry sold	\$	
Grandin's Screened Scratch Fd.			Less original cost		
Grandin's Growing Feed			Profit on sale of poultry		
Grandin's Intermediate Chick Fd.					
Grandin's Buttermilk Chick Starter			Eggs for home consumption at market price		
Grandin's Baby Chick Feed					
			Poultry for home consumption at market price		
			Total Income		
			Less Total Expenses		
Total Expenses			Profit for the month		

From September to February eggs always bring high prices. If your hens do not lay during this period, something must be done or you will not receive the proper returns from your investment.

One influence, which tends to keep down the egg production at this time of the year is the molting season. While molting, one should give the hens extra care as this is a very severe strain and makes the hens weak. If you do not help them through the molt, you will not receive as many eggs later as you could by giving them a little special attention at this time. We recommend that you change your ration to **GRANDIN'S GROWING FEED** with **BUTTERMILK** to your molting hens as this will help them through the molt and will get them back on the job quicker for you. The **GROWING FEED** will provide the necessary materials for growing the new feathers and your hens will keep on laying some eggs even while molting.

By this time you should have your birds in winter quarters or at least have all preparations made for a quick change from the summer coops. Pullets hatched during the month of March should commence to lay in September and moving them after they commence to lay checks their egg production. Moving them after they have started to lay also has the same effect on older hens.

GRANDIN'S POULTRY DRY MASH WITH BUTTERMILK will increase the number of eggs you gather daily. It should be kept before your laying hens and pullets constantly and should be fed in conjunction with **GRANDIN'S SCREENED SCRATCH FEED.**

A damp house or a draft will soon cause trouble, therefore, do not fail to see that the roof of your house is tight, that all cracks in the walls are closed up and that the floor is good and dry. However, in taking precaution against drafts, do not go too far and close up all of the openings. It is very essential that your birds have plenty of fresh air.

FEED MOULTING HENS RED FLAG GROWING FEED



POULTRY ACCOUNT FOR OCTOBER, 1923



EXPENSES			Amount rec'd from sale of eggs		
Grandin's Poultry Dry Mash			Poultry sold	\$	
Grandin's Screened Scratch Fd.			Less original cost		
Grandin's Growing Feed			Profit on sale of poultry		
Grandin's Intermediate Chick Fd.			Eggs for home consumption		
Grandin's Buttermilk Chick Starter			at market price		
Grandin's Baby Chick Feed			Poultry for home consumption		
			at market price		
			Total Income		
			Less Total Expenses		
Total Expenses			Profit for the month		

If you have not already done so, do not fail to get your birds into winter quarters without further delay. The weather is so uncertain at this time of the year that you are very apt to needlessly expose your flock to unfavorable weather conditions such as cold rains, etc., if you do not do so. Furthermore, this is the month in which your best winter layers should start to lay and moving them after they commence to produce for you will cut down their egg production for a time. It is to your advantage to move them into winter quarters a little too soon rather than a little too late.

Unless chickens receive abundant exercise, their health cannot be maintained, digestion will become impaired, and the egg yield will fall off. While on the range during the summer months, your chickens get considerable exercise and green food, both of which they would not get while in winter quarters unless you provided especially for these things. **GRANDIN'S SCREENED SCRATCH FEED** compels exercise. All of the grains used in its manufacture are relished by the birds as only the highest grade grains are used. Birds that have been out on range all summer getting all the green food they needed would notice the change if green food was not provided after changing to winter quarters and would stop developing. For a green food feed something such as lettuce, cabbage, sprouted oats, mangle, etc.

The problem of poultry feeding requires good judgment and keen observation. Hens fed for egg production should have **GRANDIN'S RED FLAG DRY MASH WITH BUTTEMILK** as it is high in the food elements which are found in eggs. The great fault with the farmer in his poultry feeding is that he attempts to feed a whole grain ration, and generally only one grain at that. Such a ration results in poor egg-production and also causes digestive disorders and liver and kidney troubles.

(DON'T STARE UP THE STEPS OF SUCCESS,
BUT STEP UP THE STAIRS.)

WHEN ASKING FOR MASH, SAY RED FLAG

12



POULTRY ACCOUNT FOR DECEMBER, 1923



EXPENSES			Amount rec'd from sale of eggs		
Grandin's Poultry Dry Mash			Poultry sold	\$	
Grandin's Screened Scratch Fd.			Less original cost		
Grandin's Growing Feed			Profit on sale of poultry		
Grandin's Intermediate Chick Fd.			Eggs for home consumption at market price		
Grandin's Buttermilk Chick Starter			Poultry for home consump- tion at market price		
Grandin's Baby Chick Feed			Total Income		
			Less Total Expenses		
			Profit for the month		
Total Expenses					

Proper feeding and care will show their results very noticeably in December—just at the time when eggs are bringing the highest prices. If you have followed the **SYSTEM** of feeding **GRANDIN'S RED FLAG FEEDS** which we have just given you on the previous pages and have given your birds the proper care you will be gathering in the eggs thick and fast.

During this month you must continue to take into consideration the effect on your laying hens of the shorter day and must provide food which will keep up the bodily warmths on these cold winter days. Keep the hens scratching all day long, giving them every ounce of **GRANDIN'S POULTRY DRY MASH WITH BUTTERMILK** that they will eat. Feed a small amount of **GRANDIN'S SCREENED SCRATCH FEED** in the morning to start them scratching but do not let them fill up on it as it is absolutely necessary that they stuff themselves with **GRANDIN'S POULTRY DRY MASH WITH BUTTERMILK** all day long if you expect to get the maximum number of eggs because **IT IS THE MASH THAT MAKES THE EGGS**. Late in the afternoon, give them as much **GRANDIN'S SCREENED SCRATCH FEED** as they will clean up before dusk.

Do not let your layers out on the cold snow-covered ground. Allowing their feet and legs to get chilled in this way would greatly reduce the number of eggs you gather daily from the nests. Also remember to keep them supplied with green food. This is a very essential part of their diet and the best results cannot be obtained if it is overlooked.

Also see that your birds have plenty of exercise. A good deep litter, changed as often as it gets worked up fine, will make them scratch away constantly and together with **GRANDIN'S SCREENED SCRATCH FEED** will provide the means for plenty of exercise.

INSIST ON RED FLAG FEEDS



POULTRY ACCOUNT FOR JANUARY, 1924



EXPENSES			Amount rec'd from sale of eggs		
Grandin's Poultry Dry Mash			Poultry sold	\$	
Grandin's Screened Scratch Fd.			Less original cost		
Grandin's Growing Feed			Profit on sale of poultry		
Grandin's Intermediate Chick Fd.			Eggs for home consumption at market price		
Grandin's Buttermilk Chick Starter			Poultry for home consump- tion at market price		
Grandin's Baby Chick Feed			Total Income		
			Less Total Expenses		
			Profit for the month		
Total Expenses					

We have now started in on another year's work with our last year's experiences, whether they are pleasant or unpleasant, to guide us in our future work. If you have been following the **GRANDIN SYSTEM** of feeding **RED FLAG FEEDS** you will surely be so well pleased with results already obtained that you will be more determined than ever to continue the use of these **GRANDIN-QUALITY** feeds. If you have not been doing so we would suggest that you start the new year by making a resolution to follow the **GRANDIN SYSTEM** and feed the **RED FLAG POULTRY FEEDS** during the coming year. Our feeds are all made from the best materials obtainable and will surely make money for you if fed according to the system set forth in this book.

The days begin to get longer in January and if your birds are properly fed and cared for the effect of the longer day will quickly show itself in the form of more eggs. Give them a small portion of **GRANDIN'S SCREENED SCRATCH FEED** in the morning to start them scratching and late in the afternoon give them as much as they will eat up clean before it gets too dark for your birds to see. Keep a supply of **GRANDIN'S POULTRY DRY MASH WITH BUTTERMILK (THE REAL EGG MAKER)** before them at all times as it is to your advantage that they eat as much of this feed as possible.

The **SCRATCH FEED** induces exercise which is very essential, but you cannot expect to get the eggs if you do not give your birds the proper materials to convert into eggs. **GRANDIN'S POULTRY DRY MASH WITH BUTTERMILK** is a perfectly balanced ration for this purpose and will show you some very good results. The more your birds eat the more eggs you will gather.

Don't forget the green food. It is very essential and your flock will not show you the best results if you fail to provide it in one form or the other.

RED FLAG DRY MASH PRODUCES RESULTS



POULTRY ACCOUNT FOR FEBRUARY, 1924



EXPENSES			Amount rec'd from sale of eggs		
Grandin's Poultry Dry Mash			Poultry sold	\$	
Grandin's Screened Scratch Fd.			Less original cost		
Grandin's Growing Feed			Profit on sale of poultry		
Grandin's Intermediate Chick Fd.			Eggs for home consumption at market price		
Grandin's Buttermilk Chick Starter			Poultry for home consump- tion at market price		
Grandin's Baby Chick Feed			Total Income		
			Less Total Expenses		
			Profit for the month		
Total Expenses					

It is now time to make your preparations for the hatching season. Mate your birds carefully, using only healthy, vigorous males that have come from heavy-laying hens and mate to your very best laying females and you will improve your flock both in appearance and egg yield. Everybody wants to get fertile hatchable eggs early in the season, but getting fertile eggs is no problem at all, generally speaking. All that is necessary are vigorous hens with a lively, vigorous male. But **HATCHABLE** eggs is entirely another question. So it is not a question of fertility, but a question of **HATCH-ABILITY** that is the most important thing to be considered by poultrymen who desire to raise chickens in any numbers.

Experiments have absolutely proved that **GRANDIN'S RED FLAG DRY MASH with BUTTERMILK** if fed to the breeding pen will produce hatchable eggs and the chicks will be strong and vigorous as it contains the so-called protective feeds containing vitamins. **GRANDIN'S RED FLAG SCREENED SCRATCH FEED** should be fed in conjunction with the **DRY MASH with BUTTERMILK** and should be fed in a deep litter to induce proper exercise.

(A breeder's reputation is built up by sending out value in stock, eggs, etc., and a man with a reputation is not likely to deliberately defraud his customers.)

The production of poultry and eggs are as legitimate lines of work for persons of large or small means as are dairying, cattle or sheep growing or general crop production. Its advantages lie in its greater returns, for its smaller amount of capital invested. It will not break you if it fails to make you.

RED FLAG FEEDS GUARANTEE RESULTS

GRANDIN'S RED FLAG BUTTERMILK BABY CHICK STARTER



Is rich in vitamins, so essential to the health and growth of chicks. A liberal quantity of Dried Buttermilk, so necessary for rapid growth, is carefully blended with all the materials. IT'S ALL IN THE START.

E. C. DEXTER
FLOUR, FEED, GRAIN, SALT AND TILE
MEXICO, N. Y.

May 29th, 1923.

Gentlemen:

If you have a car coming this week near me, please put in 500 lbs. of Starter.

There seems to be no limit to the business on your Starter. We unloaded your car yesterday noon and we sold 650 lbs. of the **GRANDIN'S BUTTERMILK BABY CHICK STARTER** received in the same during the afternoon.

Sincerely,

E. C. Dexter.

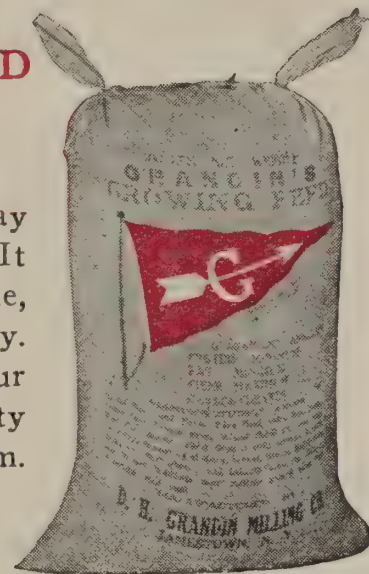
GRANDIN'S RED FLAG BABY CHICK FEED



We want to call your attention to the fact that everything used in the manufacture of Red Flag Baby Chick Feed is cracked. Just for a moment stop to think of how tiny and delicate the digestive system of the baby chick is. Then think of how much easier it is for this tiny digestive system to work on materials which are cracked than on those which are entirely enclosed in a hard hull. There is not a better chick feed made at any price. REMEMBER IT'S ALL IN THE START.

GRANDIN'S RED FLAG GROWING FEED WITH BUTTERMILK

There is no better Growing Feed on the market today than Grandin's Red Flag Growing Feed for chickens. It supplies them with all the natural elements of food value, and grows them to a strong, sturdy and early maturity. The rapid growth and full development is just what our Red Flag Growing Feed will do. It gives a wide variety to feed upon, and should be kept constantly before them. **ALWAYS REMEMBER, IT'S ALL IN THE START.**



MERRIAM-ROLPH GRAIN STORE
GRAIN, FEED, FLOUR, HAY AND STRAW
96 Main Street

Fitchburg, Mass., May 25, 1923.

D. H. Grandin Milling Co.,
Jamestown, N. Y.

Dear Sirs:

Kindly add the following to our order of May 23rd.

½ Ton Grandin's Buttermilk Baby Chick Starter in 100s.

1 Ton Grandin's Intermediate Chick Feed in 100s.

If any way possible please get this in car with order of May 23rd.

BABY CHICK STARTER is going wonderful. Everyone who has it returns for more.

Thanking you for many past favors and wishing you the most prosperous of years, we are

Yours very truly,

MERRIAM ROLPH GRAIN STORE

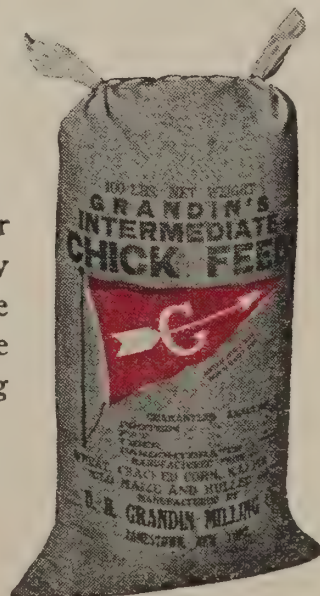
By

F. W. Smith.

GRANDIN'S RED FLAG INTERMEDIATE CHICK FEED

When chicks are five or six weeks old they prefer a larger cracked and whole grain ration than our Red Flag Baby Chick Feed. Start feeding Grandin's Red Flag Intermediate Chick Feed. The grains in this feed are just the right size for chicks of this age, and if fed with Grandin's Red Flag Growing Feed will develop the chicks very rapidly.

AGAIN REMEMBER, IT'S ALL IN THE START.





IMPORTANT POULTRY DISEASES



Fowls are liable to be affected by a considerable number of diseases, some of which spread rapidly through the flock and kill a large part of the birds. They may also be infected by various kinds of parasites, some of which live on the surface of the body and others in the crop, stomach, or intestines. These parasites are injurious because they take a part of the nourishment which should be used by the bird to put on flesh or to produce eggs. These germs and parasites should be kept out of the flock by suitable preventive measures, because disease may be avoided in this way much more easily and cheaply than it can be cured. The aim in studying the diseases of birds, is therefore, to learn how to prevent such diseases rather than how to cure them.

APOPLEXY—Apoplexy is the result of a ruptured blood vessel of the brain and the pressure of the blood that escapes therefrom. It is caused by exertion or straining during laying or too stimulating feed. Fat hens are often found dead on the nest or they may drop dead from the roost from the same cause.

TREATMENT—The attack is so sudden that treatment is not practical, and preventive measures should be instituted, and for this see that fowls have plenty of exercise and a properly balanced ration.

BUMBLE FOOT—Bumble foot is caused by jumping from too high roosts, by hard floors not properly covered with litter, or injuring sole of foot in some other manner. It is usually indicated by a hard calloused area on the bottom of the foot or lameness.

TREATMENT—Open abscess, remove pus and wash with hydrogen peroxide and then oil with camphorated oil. If the matter gathers again clean once more and swab out with tincture iodine.

BAGGING DOWN—Bagging down is often seen in hens that have been fed too much corn. The rear part of the abdomen is crowded with fat and hangs down, sometimes nearly to the ground. The ceasing to feed corn and other fat-producing foods will sometimes remedy this condition, but a bird that has been allowed to get into such a shape is spoiled for life both as a layer and breeder.

BRONCHITIS—Bronchitis is caused by exposure to cold or dampness, drafts of cold air. The symptoms are rapid breathing, rattling throat, cough. Inflammation of bronchial tubes.

TREATMENT—Correct conditions; give two grains of black antimony in mash daily; flaxseed tea to drink.

CANKER—Canker may be caused by diphtheria and roup, from wounds that become infected. Unsanitary conditions, with dampness; musty or moldy litter and spoiled grain can also be considered as possible causes. Symptoms, Cheesy patches in mouth and on tongue.

TREATMENT—Whenever the canker can be removed without causing injury or bleeding this should be done before applying the remedy. Wash sores with hydrogen peroxide and apply tincture iodine.

CATARRH OR COLDS—Is caused by improper housing conditions; exposure to cold or dampness, crowding on roosts at night, and subsequent sweating. Symptoms, sneezing, watery discharge from eyes and nostrils. Discharge may dry on nostrils, stopping it, causing breathing with open mouth and watery eyes, with bubbles in corners.

TREATMENT—Wash affected parts with three percent solution of boracic acid. If discharge is quite watery when first noticed, spirits of camphor in drop doses, given on bread crumbs or a little sugar, repeated four or five times daily, will usually cure.

CHICKEN-POX—This rarely attacks full grown birds, but usually is seen in the fall of the year on partly matured stock. The head, face and underside of wing are the ordinary seat of the sores or ulcers that constitute the prominent feature of chicken-pox.

TREATMENT—Apply carbolated vaseline to the ulcers twice a day. Avoid damp houses and exposure to rains. Remove the scabs and dust with iodoform.

CONSTIPATION—This is caused by a lack of exercise or to improper feeding, lack of green food. Symptoms, frequent attempts to evacuate the bowels, stoppage of bowels, clogged vent.

TREATMENT—Give purgative of Epsom salts or castor oil.

CROP BOUND—Crop bound is usually caused by digestive disorders or improper feeding, the result of the fowl eating dry grass, wire grass, straw or leaves, etc., which form into a tangled mass and cannot pass beyond the crop. Hens in confinement crave green food and unless given it in some form will eat the litter given to scratch in. Hens that are fed on **GRANDIN'S DRY MASH WITH BUTTERMILK (THE REAL EGG MAKER)** rarely get crop bound, because it contains green cut Alfalfa.

RED FLAG SYSTEM PREVENTS POULTRY DISEASES



IMPORTANT POULTRY DISEASES (Continued)



TREATMENT—Give the bird a tablespoonful of castor oil, and force it to swallow, then knead carefully the hard mass. If successful in softening it, hold the hen head downward and try to push the substance along and out the mouth. If swelled grain is the cause of the trouble, you will probably be successful; but if it is dry grass (straw or leaves, you will have to open the crop. If someone will hold the bird for you it will make the operation more easy. Pluck out a few feathers, and then cut through the skin over the crop, about one inch long with a sharp knife or razor, then make an incision there-fourths of an inch long through the crop, with a button-hook, gently remove the mass through the opening, being careful to clean the crop thoroughly. Then run the finger into the crop, and make sure there is nothing remaining to obstruct the outlet. When sure all is right, take three or four stitches in the opening of the crop, then do the same thing in the skin. Common cotton thread can be used for stitches. Keep the bird by herself for a week, feeding soft food.

CHOLERA—Cholera may either develop in the poultry yard from unsanitary conditions or may be introduced by contagion carried by new birds which are added to the flock, by birds which have been to exhibitions, by wild birds which fly from one poultry yard to another. Symptoms: The appetite is lessened and there is a watery diarrhoea. The bird is sluggish, rough plumage, great thirst, drooping wings, head drooped, and eyes half closed. The discharge later becomes yellow, while in a healthy bird it is white, and it generally turns green as the disease progresses. The comb becomes dark.

TREATMENT—Look for the cause of the trouble and remove it—this is very important. Separate sick birds at once. Disinfect thoroughly all pens, runs, and utensils used by the birds with carbolic acid. Take equal parts of sulphur, powdered alum, ginger and coperas. Add a teaspoonful of the mixture to mash once a day for a dozen birds.

DEPLUMING MITES—Depluming mites is a parasite that attacks the roots or the base of feathers; they break off leaving bare spots. Will quickly spread through an entire flock. Usually found in spring and summer.

TREATMENT—The affected spots of the skin from which the feathers have dropped out should be anointed for some distance around them with an ointment made by thoroughly mixing sulphur and lard or vaseline. Apply at least twice with an interval of a week or 10 days.

DIPHTHERIA—Diphtheria is a dangerous and quite fatal disease. It is contagious, being given by one bird to another, directly or through the medium of food or drinking water.

The cause, improper housing and filth. Symptoms: High fever with gray spots in the throat; discharge from nostrils; bird sits with back arched, head and neck drawn toward the body. Swallowing is difficult and the bird stretches its neck and gaps. Later there is a slight discharge from nostrils, and a sticky fluid, with string-like pieces mixed with the fluid from the mouth.

TREATMENT—To successfully handle this disease the bird should be in a warm room of even temperature. The discharge should be carefully wiped off the mouth and throat. Then with a metal or quill tube blow sulphide of calcium in fine white powder all over the mucous membranes. This should be done three or four times a day. If the patient is able to take food, put one grain of the calcium sulphide into a little warm mash, and give before each application of the powder to the throat.

EGG EATING HABIT—The egg eating habit may arise from eating soft shelled eggs, eating egg shells that have not been finely crushed. Sometimes the lack of animal food seems to create an appetite for egg-eating. Nest boxes without proper filling often lead to broken eggs.

TREATMENT—Feed a well balanced ration, making birds scratch for all grain. (GRANDIN'S DRY MASH with BUTTERMILK is a REAL EGG MAKER and one of the best balanced rations made. Have all nests dark as possible, well supplied with straw, and china nest eggs. In some cases we have found it necessary to pare the beaks down until they almost bleed, then scatter china eggs where the hens can get at them. The pared beaks are extremely sensitive at first and pecking the hard china eggs causes such pain as soon to make them lose their appetite for egg-eating.

FEATHER-EATING—This is due largely to laziness on the part of the birds; over-feeding and crowded flocks, lack of exercise and in some cases the lack of animal food. Rarely does this habit develop among fowls that have free range and that are fed a balanced ration.

TREATMENT—Keep GRANDIN'S DRY MASH with BUTTERMILK, (THE REAL EGG MAKER) before them all the time and make them work hard for all scratch feed fed in a deep litter, allow plenty of house room and runs. In some cases it may be necessary to apply an ointment of some bitter substance, such as quinine or aloes mixed with vaseline, to the feathers where they are being eaten.

FAVUS—Favus is caused by a germ which develops in filth. It is very contagious. It generally begins on the comb or wattles and is shown by gray or white, round or irregular spots, multiplying, forming a thin whitish



IMPORTANT POULTRY DISEASES (Continued)



covering over the diseased surface. The disease spreads to the neck and other parts of the body and the feathers drop out.

TREATMENT—Separate afflicted birds at once, and thoroughly disinfect house, utensils, and runs. Apply glycerin to soften scabs then rub off with a blunt instrument. Oil the sore surface with an ointment made by mixing one part oleate of zinc and ten parts vaseline. Do this once a day until the eruption disappears.

GAPES—Gapes is a disease of chickens which develops during the first few weeks of their lives and is made evident by frequent gaping. It is caused by a parasitic worm which attaches itself to the internal surface of the windpipe. The eggs of this worm live a long time in the soil and are sometimes taken into the digestive tube of the earth worms. In badly infested ground a considerable proportion of the earthworms may, if eaten be capable of causing the disease in chicks. These facts explain why ground upon which chickens are raised year after year becomes so badly infested, and how the infection is carried over from one year to the next. Symptoms: Difficulty in breathing, mouth opens frequently and gapes or gasps for breath. Chick stands around with head down and feathers ruffled.

TREATMENT—Put the chicks in a basket and swing back and forth through the fumes of burning sulphur. Put chicks in box covered with muslin. Dust air slacked lime through the muslin to induce sneezing and dislodgment of the worms. The best method of prevention is to put the chicks, when hatched, on fresh ground.

GOING LIGHT—Going light is a condition where the fowls gradually become very much emaciated without an apparent cause. It is supposed to be caused by a germ which affects the small bowel, especially that portion next to the gizzard. Symptoms: Great loss of flesh, lack of appetite, and diarrhoea; dejected appearance and listlessness.

TREATMENT—Disinfect the poultry house with carbonal or carbolic acid, 1¼ ounces, 1 gallon of water. Take equal parts by weight of powdered gentian, black antimony, carbonate of iron, ginger, charcoal and two parts baking soda. Give a teaspoonful in mash for every ten hens.

HEAD LICE—Head lice are of the family which are true blood suckers, having long bills with which to puncture the skin and blood vessels underneath. They fasten on the head and throat of little chicks and quickly sap their vitality.

TREATMENT—Anoint head with a few drops of melted lard. Prevention is cheaper and more satisfactory.

INDIGESTION—This trouble is due to irregular feeding, decomposed or mouldy feed, lack of exercise and grit, or the absence of green food.

TREATMENT—Keep **GRANDIN'S DRY MASH** with **BUTTERMILK (THE REAL EGG MAKER)** before them all the time, and feed **GRANDIN'S SCRATCH FEED** in a deep litter, a very little in the morning and just what they will clean up at night. This is a real balanced ration. Always provide birds with a good supply of sharp grit and fresh water. **GRANDIN'S DRY MASH** contains green cut Alfalfa which is very important for fowls that do not have free range or grass runs and to a certain extent takes the place of green food, which is so important in preventing indigestion.

INFLAMMATION OF THE LIVER—This disease often follows congestion of the liver, which is the result of over-feeding especially stimulating food, or condiments, such as pepper, ginger or mustard. The symptoms are sluggishness, loss of appetite, yellowness of the comb, wattles and eyes.

TREATMENT—Carefully regulate the diet, do not over feed, avoid stimulants, especially pepper and ginger. Give one-half to one grain of calomel, one hour later give one teaspoonful Epsom salts. The fowl should be kept where it is dry and should have plenty of fresh air. Feed only easily digestible foods, stale bread or oatmeal gruel are best.

LICE—There can be no success with poultry if they are troubled with lice. A lousy hen is a poor layer, eats much, but puts on no flesh, and easily falls prey to disease.

TREATMENT—Supply a good dust bath of road dust, mixing in sulphur or tobacco dust or other insecticides. Paint the roosts with Crenoid or other good liquid lice paints. The dropping board should be cleaned two or three times a week. If possible cleaning every day is best.

LIMBER NECK—Limber neck is caused by the hens or chicks eating dead birds or animals lying around the lot or farm. It is not the maggots that are eaten that cause the disease, but the decayed flesh of the carcass itself. Germ life in destroying the meat gives out a poison that paralyzes the nerve centers.

TREATMENT—The first thing is to clean out the rotting mass in the intestines by use of Epsom salts or castor oil, and then add sulpho-carbolate zinc to the drinking water for a week, about ten grains to each quart.

LEG WEAKNESS—Leg weakness in fowls is caused by exposure, close confinement in damp houses, to feeding too much fat-forming material, such as corn or other foods rich in fats. The cause of leg weakness in chicks, is lack of bone building and bone strengthening



IMPORTANT POULTRY DISEASES (Continued)



material, too close confinement with lack of exercise and to keeping on a board floor too long with lack of moisture.

TREATMENT—Avoid the causes as far as possible. Feed **GRANDIN'S SCRATCH FEED** only once a day and only just what they will eat up quite quickly and this preferably at night. Keep the **GRANDIN'S DRY MASH** with **BUTTERMILK**, (**THE REAL EGG MAKER**) before them all the time. In chicks the feeding of **GRANDIN'S BUTTERMILK STARTER** will almost invariably correct this trouble as it contains bone and muscle building material in proportions necessary to promote strong growth.

PNEUMONIA—This is an inflammation of the air cells of the lungs. In the large majority of cases it proves fatal. The cause is close confinement in warm houses, followed by a sudden exposure to a cold, damp storm. The open front scratch sheds and houses for fowls, and for chicks too, will do more to prevent pneumonia than medicine will to cure it. Chicks not feathered, caught out in a heavy rain, easily contract pneumonia—and such cases are usually fatal.

TREATMENT—Give one drop Tincture of aconite every two hours in milk. Feed nothing but raw eggs and milk until the breathing becomes easier. Give no solid food for at least forty-eight hours. Feed easily digestible and stimulating soft food while convalescent.

RHEUMATISM—While this is a disease affecting all parts of the body, the prominent symptoms are those located in the legs. Rheumatism may result from long exposure to cold and moisture. It may be produced by overfeeding of meat and is most likely to appear during damp winter weather. Symptoms are swollen joints, lameness, and contraction of the muscles. Fowls are subject to rheumatism, but the fatal cases are few. Brooder chicks exposed to the evils of damp soil or dark, cool hovers furnish many cases of rheumatic trouble, the losses from the disease being large.

TREATMENT—The suggestion for treatment also indicates the line to be pursued in the prevention of rheumatism. The fowls should be housed in dry and sunny quarters. Give as large a variety of green vegetables as possible. **GRANDIN'S DRY MASH** with **BUTTERMILK** (**THE REAL EGG MAKER**) contains green cut Alfalfa which is very beneficial in preventing and curing rheumatism. Swollen joints or muscles can be rubbed with witch-hazel. For internal treatment there is no better remedy than iodide of potassium in their drinking water, fifteen grains to every quart of water.

ROUP—The term roup has been applied to nearly all poultry diseases accompanied by the symptoms described as frothy eyes and

running discharge from nostrils. All colds, may have these symptoms, but every cold is not roup. Roup is always accompanied by the familiar foul smell. The odor is peculiar to the disease, and is very lasting and penetrating and when once recognized there is very little danger of ever mistaking any other disease for roup. The general symptoms are: Discharges at mouth and nostrils, swelled head, offensive breath, difficult breathing, canker spots, and exhaustion. Roup is the result of close air, extreme variations in temperature between day and night, damp houses, draughts, improper food, and filthy water.

TREATMENT—When the disease first makes its appearance, remove every sick bird from the flock as soon as you can find it, clean up and use a good disinfectant, like creolin, sulpho-naphthol or carbonal, freely about the houses and runs. If the disease is taken in hand early it can frequently be stamped out by using a creolin spray. Mix one teaspoonful of pure creolin in a gallon of water. With a spray pump, spray this solution about the poultry houses after the birds have gone to roost. Spray it about the heads of the birds so that they may inhale the vapor. It will cause a great deal of sneezing and coughing. This treatment every night for ten days or two weeks will cure many cases of colds and mild cases of roup.

SCALY LEG—Scaly legs are caused by a minute insect or parasite, which burrows under the scales of the legs, causing a crust-like appearance. It passes from diseased to well birds on the roost, or is contracted by chicks when with the mother hen. A case of scaly leg in the flock is a source of danger to every other bird, but is so easy to cure that no intelligent poultryman is excusable for its presence on his place.

TREATMENT—Make an ointment by mixing sulphur and lard or vaseline. Apply every other night for a week working it into the rough scales. Very bad cases can be cured more quickly if ointment is spread on legs thickly and wrapped with a rag. Another good remedy is to dip the legs in kerosene oil, holding them there one minute.

SOFT-SHELLED EGGS—Anything that excites or inflames the oviduct tends to produce soft-shelled eggs. Worms in the bowels may cause irritation enough to hurry the expulsion of the egg. Over fat hens are apt to lay these eggs. The cause may be the lack of oyster shells, grit, green food, improper feed and feeding, also the lack of exercise.

TREATMENT—Oyster shells, grit and fresh water before them all the time, also Grandin's Poultry Dry Mash, as this contains green cut Alfalfa which is beneficial in preventing and correcting the laying of soft shelled eggs. **GRANDIN'S SCRATCH**

ESSENTIAL FOR SUCCESS, RED FLAG DRY MASH



IMPORTANT POULTRY DISEASES (Continued)



FEED should always be fed in deep litter to force them to exercise, feed only once a day, preferably at night. In cold weather a little may be fed in the morning.

VENT GLEET—Vent-gleet always begins with a hen, generally from a broken egg, causing septic inflammation. It is propagated in copulation and hence may spread in a yard, or be introduced by an infected male. A hen found with it should be at once isolated and the male carefully examined, and if necessary isolated and treated. Symptoms, white offensive discharge which collects on the skin and feathers about the vent, causing irritation and inflammation. This sometimes causes Canker of the vent if not given attention.

TREATMENT—Make a warm solution of one teaspoonful Carbonal in two quarts of warm water, and bathe the vent for five or ten minutes, then dry the parts and dust with iodoform.

WHITE DIARRHOEA—This is a disease that kills chicks up to four weeks of age, if a chick gets by that age it is likely to live. The germ of the disease may be within the chick when hatched, may be taken in from the shell of an infected egg in the picking on the incubator floor, or may be eaten with food, or taken with drink, in the first few days of the chick's life. A single chick with the illness well established can by means of the drop-pings, spread it quickly to the whole bunch. The symptoms, are a listless, drowsy, inactive, ruffled and dull appearance. They brighten up for a moment, pick for food, and suddenly grow dull again. With it all comes the single symptom that gives the name of the disease. This is a thin bowel discharge, white in color, pasty, sticky. Often sticking to the down about the vent, dries, and accumulates until the opening is completely closed. This condition unless soon relieved will in itself bring

about the death of the chick. The first step in the prevention of the disease lies in the selection of egg from stock that is known to be free from the disease germs. When you find that white diarrhoea develops a day or so after chicks hatch it is reasonable to suspect that the parent stock is infected. When the disease develops later it may be due to infected incubators, Brooders, Coops or infected ground on which the young chicks have been placed.

TREATMENT—This is almost entirely of preventive character. Disinfect premises with creolin or carbolic acid disinfectant. Give laxatives and tonics to adult fowls. It has been found that the use of sour milk or buttermilk is one of the best remedies for white diarrhoea. Feeding **GRANDIN'S BUTTERMILK STARTER** for the first few weeks will be found one of the very best ways to not only prevent white diarrhoea but all other bowel troubles in baby chicks.

DIARRHOEA — This is more prevalent with chicks than fowls, chicks suffer from this quite young, whether raised in brooder or with mother hen, and may be caused by chills resulting from exposure to cold or to low temperature in the brooder, and improper incubation before they are hatched. Lice, improper food, wet, and sloppy food and mashes, feeding too soon, a lack of grit, eating food which has been thrown down in their own filth.

TREATMENT—The remedy is to first find the cause and remove it if possible. Feed only **GRANDIN'S BABY CHICK FEED**, as all of the grains and seeds are cracked which makes it easier for their digestive system, and is always clean and free from dust. **GRANDIN'S BUTTERMILK STARTER** contains all the materials essential to the growth of the chicks and the dried buttermilk which it contains is a preventive as well as one of the best remedies for bowel troubles in chicks.

EGG-BOUND FOWLS

A hen so affected will be seen to visit the nest repeatedly without result. She will show distress, with a depression of the wings and tail. The stoppage may be the result of the contraction of the egg passage, or of an abnormally large egg. In the latter case the remedy is easy.

For large eggs, which can be discovered by an examination of the bird, the vent should be softened with salad oil, followed by an injection of the same if this is not effective within an hour. Great care must be taken in handling or making an injection, for if the egg be broken the result will probably be fatal.

Benefit has been derived also from the holding of the bird above a jug of hot water, allowing the steam to enter the vent. Contraction of the vent is generally accompanied by inflammation, either the cause or the result of the contraction. This can be discerned by the heat of the part, and the feverishness of the bird.

D. H. Grandin Milling Co., Jamestown, N. Y.

Dear Sirs:—This is my first season of using your grains beginning with the baby chicks but I certainly have given it a test this year and find it the best that I ever used. Very truly,

Mrs. M. L. Tirrell.
Locke Mills, Maine.

Locke Mills, Maine,
June 1, 1923.



JUDGING FOWLS FOR EGG PRODUCTION



In order to lay well a bird must have a sound body, and must be vigorous and healthy. Vigor and health are shown by bright, clear eyes, a well-set body, a comparatively active disposition and a good circulation. There must be no physical defects, such as crooked beak, crow headed, excessively long toenails, eyelids that overhang so that the bird cannot see well, scaly leg, or anything else that would keep the bird from seeing or getting an abundance of food.

A laying fowl uses up the surplus fat in the body, especially the fat from the skin. In yellow-skinned breeds this loss of fat can readily be seen by the loss of the yellow color. The different parts of the body tend to become white, according to the amount of fat stored in the body.

The vent changes very quickly with egg production, so that a white or pink vent on a yellow-skinned bird generally means that the bird is laying, while a yellow vent means a bird is not laying. All yellow-color changes are dependent on the feed. A heavy bird fed on an abundance of green food or other material that will color the fat deep yellow will not bleach out nearly so quickly as a smaller or paler colored bird.

The eye-ring; that is, the inner edges of the eyelids, bleaches out a trifle slower than the vent. The ear-lobes on leghorns and anconas bleach out a little more slowly than the eye-ring, so that a bleached ear-lobe means a little longer or greater production than a bleached vent or eye-ring.

The color goes out of the beak, beginning at the base and gradually disappears until it finally leaves the front part of the upper beak. The lower beak bleaches faster than the upper. On the average colored yellow-skinned birds, a bleached beak means heavy production for at least the past four to six weeks.

The shanks are the slowest to bleach out and hence indicate a much longer period of production than the other parts. The yellow first goes out of the scales on the front of the shanks and finally from the scales on the rear. A bleached-out shank usually indicates fairly heavy production for at least 15 to 20 weeks.

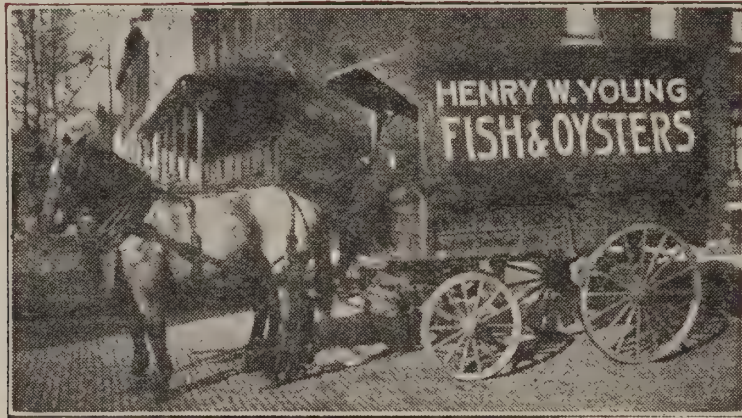
A laying hen has a large, moist vent, showing a dilated condition and looseness as compared with the hard, puckered vent of a non-laying hen. The whole abdomen, as well as the vent, is dilated so that the pelvic arches are widespread and the keel is forced down, away from the pelvic arches, so as to give large capacity.

Heavy production is shown by the quality of the skin, and the thickness and stiffness of the pelvic bones. Fat goes from the skin and body with production, so that the heavy producers have a soft, velvety skin that is not underlaid by layers of hard fat. The abdomen in particular is soft and pliable. The thicker and blunter the pelvic bones and the greater the amount of hard fat in the abdomen the less the production or the longer the time since production.

In order to lay heavily she must have sufficient body capacity to digest large amounts of food rapidly. Large capacity in a laying hen is shown by a body that is deeper at the rear end of the keel than at the front end.

The comb, wattles and ear-lobes enlarge or contract, depending on the ovary. If the comb, wattles and ear-lobes are large, full and smooth or hard and waxy, the bird is laying heavily. If the comb is limp, the bird is only laying slightly; she is not laying at all when the comb is dried down. The wattles and ear-lobes fit close to the beak and are not loose and flabby. The face is clean-cut. The eye is full, round and prominent.

A good layer is more active and nervous, and more easily handled than a poor layer. A low producer is shy and stays on the edge of the flock and will squawk when caught.



EXPERIENCE

Always the Guide of Wise Men

"My experience with horse and auto livery has been enlightening and conclusive. For some ten years horses gave satisfactory and reliable delivery service. About 1915 my store manager decided auto trucks were better and I disposed of the horses and changed to trucks, using five of the best two ton trucks available and five light delivery cars. I also added a repair shop and service car with an expert mechanic to keep the cars in first class shape.

"With the best truck outfit and repair service that money could buy our delivery system should have been ideal, but it proved less reliable than horses and the increased costs over horse delivery were appalling."

"It took me five years to get rid of the truck outfit and to get back to horses. For the past year I have been using ten horses which give me much better and more reliable service. My books show a saving of \$10,000 for the past year by the change from trucks to horses.

"My saving of \$2,500 in licenses, insurance and indemnity costs would pay the feed bills of the ten horses and also pay for the shoeing and wagon repairs for the year.

"The re-sale value of 20 per cent on a \$1,100 team outfit after eight years of work as compared with a re-sale value of 10 per cent on a \$4,500 truck after three years of service is also in favor of the horse.

"In delivery of all lines of food products the horse is here to stay and where costs and service must be considered horses will come back much more in city delivery work."

Henry W. Young,
Reading Terminal Market,
Philadelphia, Pa.



GRANDIN'S STOCK FOOD



GUARANTEED ANALYSIS

Protein	not less than	9%
Fat	not less than	5%
Fiber	not more than	12%
Carbohydrates		55%

MANUFACTURED FROM:

Corn Meal, Corn Feed Meal, Hominy Feed, Wheat Middlings, Ground Barley, Oat Meal Mill By-Products, (Oat Middlings, Oat Hulls, Oat Shorts) and one half of one percent Salt. (Wheat Middlings may contain ground screenings not exceeding mill run).

Feed your horses **GRANDIN'S STOCK FOOD** no matter if they are slow-moving heavy work horses or fast-moving trotters. It will keep them in the best of condition at all times and you will find them doing more and better work than ever before. **GRANDIN'S STOCK FOOD** should be fed in the same quantity as you would good oats and it is all your horses need.

"Grandin's Stock Food" was first manufactured for a horse feed, and was thus used for many years. But we find that a great many farmers are now using it for their young stock.

One of our representatives has used several tons of Grandin's Stock Food for growing stock in the last few years, and with fine results. We recommend feeding it straight, unless you are fitting stock for sale or the show-ring, then it would be advisable to add 20% Oil Meal.

Calves should be started on Stock Food, when about two to three weeks old. Start them on this feed, by putting a small amount in the feed pail as soon as they are done drinking. After they get to like it, keep it constantly before them until they are full grown.

Calves fed the "**GRANDIN WAY**" will make very rapid growth and thereby mature in less time than when fed on milk alone.



GRANDIN'S STOCK FOOD IS GRAND-IN-QUALITY



GRANDIN'S 24% BALANCED DAIRY RATION



GUARANTEED ANALYSIS

Protein	not less than 24%
Fat	not less than 5%
Fiber	not more than 10%
Carbohydrates	50%

MANUFACTURED FROM:

Distillers Dried Grains, Cottonseed Meal, Coconut Oil Meal, Linseed Oil Meal, Corn Gluten Feed, Wheat Bran, Wheat Middlings, Hominy Meal and a small percentage of Salt. (Wheat Bran and Wheat Middlings may contain ground screenings not exceeding mill run).

GRANDIN'S 24% BALANCED DAIRY RATION

One of the principal ingredients of this Ration is Dried Distillers Grains, which makes it very popular in some sections. Owing to varying methods of feeding in different localities, we find a good demand for this 24% Ration.

Most **FEEDERS** believe that Grandin's Twin Six Dairy Feed is entirely satisfactory for the entire milking period, but others think that as their cows advance in lactation, it is necessary to feed more Protein. Therefore, they feed Grandin's 24% Balanced Ration.

Dairymen who have an abundance of good corn ensilage and mangles, need not feed much grain. In these cases, a 24% Ration is probably better than one carrying less Protein.

Grandin's 24% Balanced Ration has given excellent results, and its many users pronounce it as one of the **BEST**.



ROWENA RAG APPLE 1st. 2 year old heifer owned by E. R. Brown, West Bath, Maine.

IT PAYS TO WEIGH SYSTEMATICALLY



GRANDIN'S TWIN SIX DAIRY FEED GRAND-IN-QUALITY



GUARANTEED ANALYSIS

Protein	not less than 22%
Fat	not less than 5%
Fiber	not more than 12%
Carbohydrates	50%

MANUFACTURED FROM:

Linseed Oil Meal, Cottonseed Meal, Coconut Oil Meal, Corn Gluten Feed, Wheat Bran, Wheat Middlings, Corn Meal, Corn Feed Meal, Hominy Feed, Alfalfa Meal and one half of one percent of Salt. (Wheat Bran and Wheat Middlings may contain ground screenings not exceeding mill run.)

GRANDIN'S TWIN SIX DAIRY FEED is being fed by thousands of Dairymen all over New England with perfect satisfaction. If you are not feeding it, you should buy some and feed it pound for pound against your present ration; then you will understand why it is the "**PACKARD**" of all Dairy Rations.

TWIN SIX is mixed from the choicest grains obtainable, and owing to the many grains and salt entering this Ration, it is the most palatable, digestible, and best blended Feed on the market.

It is a complete Dairy Ration. Don't try to improve it. This is impossible. **TWIN SIX** will produce results, always has, and always will. It has no equal. Others may claim to have something just as good, but your guarantee of success is to insist on getting **GRANDIN'S TWIN SIX** Dairy Feed. It has a Red Flag on the bag.

Cows fed on Twin Six any length of time will be in perfect condition, and will produce more milk at a smaller cost than they would on any other feed.

TABLE FOR FEEDING TWIN SIX DAIRY FEED

Milk Given Qts.	Twin Six Qts.	Corn Silage Lbs.	Hay Lbs.
8.....	7.....	25.....	7.....
9.....	8.....	28.....	8.....
10.....	9.....	32.....	9.....
12.....	10.....	35.....	10.....
14.....	11.....	39.....	11.....
16.....	12.....	42.....	12.....
18.....	13.....	46.....	13.....
20.....	14.....	49.....	14.....
23.....	15.....	53.....	15.....
25.....	16.....	56.....	16.....

If no silage is used, feed double the amount of hay shown above. These figures are for **DAILY** yield and feed—not each milking.

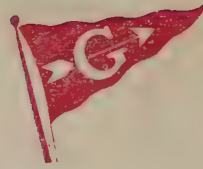
We believe that every farmer should keep a careful record of the amount of milk which his cows produce. It will only require a few minutes daily, but will mean a great many dollars in increased profits.

We have on hand a supply of **TWIN SIX** milk sheets, with space for fourteen cows, which we will gladly furnish you upon request to the D. H. Grandin Milling Co., Jamestown, N. Y.

WRITE FOR TWIN SIX MILK SHEETS AT ONCE



GRANDIN'S MILK MAKER WITH BEET PULP



GUARANTEED ANALYSIS

Protein	not less than 20%
Fat	not less than 5%
Fiber	not more than 12%
Carbohydrates	50%

MANUFACTURED FROM:

Linseed Oil Meal, Cottonseed Meal, Coconut Oil Meal, Wheat Bran, Wheat Middlings, Corn Meal, Corn Feed Meal, Hominy Feed, Beet Pulp and one half of one percent of Salt. (Wheat Bran and Wheat Middlings may contain ground screenings not exceeding mill run.)

A great many dairymen, in certain sections, have a high regard for a Beet Pulp ration, and it was for these people that **GRANDIN'S MILK MAKER with BEET PULP** was first manufactured. By combining Beet Pulp with nine other grains we were able to keep the Fat and Carbohydrates the same as in **GRANDIN'S TWIN SIX DAIRY FEED** (which has always been a success).

This ration works exceedingly well when there is a good supply of high grade Alfalfa or Clover Hay for roughage.

GRANDIN'S MILK MAKER should be fed liberally, about one pound to three pounds of milk.

The same careful attention is used in selection of feeds for this ration as in all other Red Flag Feeds, only one quality, **"THE BEST."**



A TWIN SIX HERD

This is part of the herd at Riverton Dairy, Woodfords, Me., owned by J. W. Smith.

Mr. Smith is the largest producer of **"GRADE A"** milk for the Portland market in this section. This herd has eaten about 240 tons of **GRANDIN'S TWIN SIX DAIRY FEED** during the past three years and are still going strong.



POINTS OF INTEREST IN A BALANCED RATION



Dairymen the world over used to think that if a cow was any good she would lose flesh during the period of lactation, but times and ideas have changed in the last few years and we are beginning to realize that by feeding a properly blended and balanced ration, a good profitable dairy cow will give a large flow of milk and still be able to keep in excellent condition.

The chances are that a cow which loses flesh during the milking period is being fed an over supply of nitrogenous food and is receiving more protein than can be assimilated. She would be doing much better on a ration containing more carbohydrates and fat and less protein. Some people would have us to believe that protein is the only essential of a balanced ration. If so, we should be able to get good results from straight Cottonseed Meal but we do not.

There are several points which we believe should receive careful attention in the manufacture of a balanced ration for dairy cattle. They are as follows:

Palatability—By this we mean that the ration should be made from clean, wholesome grains properly blended to give a flavor to the ration that cows will crave for, not a ration mixed from inferior grains and sweetened with molasses.

Digestibility—The better the quality of the feeds entering the ration the more digestible it will be.

Bulk—The ration should be bulky, weighing about one pound per quart. This bulk should be arrived at by the use of coarse grain rather than with Oat Hulls.

Protein—There should be the necessary amount of digestible protein but there is no advantage in adding more.

Carbohydrates and Fat—These two ingredients are of great importance and we must have an abundance of them. If the ration is shy of them our cows will lose flesh and be low in vitality and vigor. Yet if there is an over supply they will not be wasted, but stored as body fat for future use.

There is absolutely no advantage in feeding a 25% protein ration which only contains 17.5 to 18% digestible protein **BUT** there is a great disadvantage with a feed of this kind. We must supply enough extra carbohydrates and fat to furnish the energy for the disposal of this excessive amount of crude and undigestible protein and that means a waste of grain.

Working along the above mentioned lines for several years, we were able six years ago to put **GRANDIN'S TWIN SIX DAIRY FEED** on the market for the use of dairymen and by the way they are using it and the results it is giving, we feel well repaid for all time and expense used in perfecting this ration. We are going to suggest that if you have never fed **TWIN SIX** that you purchase a few bags and feed it according to the following directions and thereby learn what real honest value means in a dairy feed.

In testing a dairy feed we believe you should make a careful observation of the physical condition of your whole herd and then pick a few cows as near the average as possible to test the feed on. Gradually change these cows from their present ration to **GRANDIN'S TWIN SIX**. At first it will be well to weigh the grain so as to give them the same amount as they have been receiving. You should weigh the milk and record the milk from each and every cow in the herd (we will be glad to furnish the milk sheets free of cost) and all cows should receive the same kind, quantity and quality of roughage. This test ought to be carried on for several weeks in order to get a fair idea of what **TWIN SIX** will do to the condition of your cows. After carrying on a feed test in this way you will be able by careful observation of the milk sheet to see just what results have been obtained by the use of **TWIN SIX**. If it hasn't done better than your present ration you would be very foolish to continue feeding it.



CITY MILK TRADE



Most cities have certain standards which a milk dealer must conform to, namely; the minimum amount of butter fat and solids, not fat, and the maximum amount of water and bacteria, which the milk may contain. Of course the fats and solids are largely influenced by the breed of cattle, Jerseys and Guernseys running high and Holsteins and Ayrshires lower.

Therefore, any one supplying a city milk trade should keep the breed or breeds of cows most nearly conforming to the City Standards and requirements of his particular trade.

The Bacteria is within the control of every milk producer, if he will do the following things:

- 1st. Have healthy cows and keep them clean.
- 2nd. A clean and light stable.
- 3rd. Use plenty of bedding such as dry sawdust or cut straw.
- 4th. Never do anything to stir up a dust just before or during the milking period.
- 5th. Wipe the cow's udders and flanks with a cloth dampened in B. K. solution immediately before milking.
- 6th. Have all milk dishes and bottles thoroughly washed, rinsed and sterilized.
- 7th. Cool milk to 50 degrees or lower as soon as taken from cows and keep iced until delivered to consumer.

If the foregoing directions are followed there should be no trouble from bacteria or sour milk.

The two most important factors entering into a successful city milk trade are:

- 1st. High quality or Grade A milk.
- 2nd. Service.

By service we mean—

Regular time of delivery, a plentiful supply, so that you can always furnish extra milk when called for.

Also courtesy to your customers.

Neat appearing team and man.

Correct accounts and statements.

There have been fully as many city people change milkmen for a lack of service as for poor quality milk.

Therefore, if a man will give his trade a high quality product and good service, there is no reasonable price which he can fail to get for his milk, and his success will be limited only by the effort put into the business.

"In handling the largest dairy business in the western Pennsylvania district, we know by experience that gas or electric trucks cannot compete with the horse in house to house milk delivery, either in cost, time, upkeep or length of service.

"We plan now to do away with many of our auto trucks used on long distance or suburban work, by establishing stations in outlying districts and deliver from each station with horse equipment. We are using 500 horses—no reduction or replacement, but an actual increase in the number of horses used each year."

RIECK-McJUNKIN DAIRY COMPANY.

OUR RED FLAG TRADEMARK STANDS FOR QUALITY



GRANDIN'S HOG FEED



GUARANTEED ANALYSIS

Protein	not less than 18%
Fat	not less than 5%
Fiber	not more than 10%
Carbohydrates	50%

.. MANUFACTURED FROM:

- Linseed Oil Meal, Coconut Oil Meal, Wheat Middlings, Corn Meal, Corn Feed Meal, Hominy Feed, Digester Tankage, Calcium Carbonate, Alfalfa Meal and one half of one percent Salt. (Wheat Middlings may contain ground screenings not exceeding mill run).

GRANDIN'S HOG FEED will develop your pigs rapidly, keep them healthy and will produce fat hogs.

GRANDIN'S HOG FEED should be kept before your pigs **CONSTANTLY** in self-feeders because their lives are so short that every day and every hour counts with them. This feed will develop good strong frames and will keep your pigs in such condition that it will be a very simple matter to get them ready for the market.

As soon as the time comes for fattening divide the self-feeder into two parts, one to contain **GRANDIN'S HOG FEED**, the other whole or cracked corn, and see how fast your hogs will fatten.

Here is a table showing the comparative feeding values of **GRANDIN'S HOG FEED**, Corn Meal and Standard Middlings.

	Protein Pct.	Fat Pct.	Fiber Pct.
Grandin's Hog Feed.....	18	5	10
Corn Meal	9	3	5
Standard Middlings	14	4	11

GRANDIN'S HOG FEED shows up pretty well, doesn't it?

CONDITIONS ARE IMPROVING

The hard times of the past few years are gradually improving for the dairy-farmer and it appears that conditions will soon be normal. In some respects, this has been the worst crisis that dairymen have ever passed through yet in other ways it has been of great benefit to the industry. In the past most all farmers kept some cows whether they paid a profit or not and did not stop to think that every quart of milk produced at a loss hurt the business just that much. It was not only a loss to them individually but also helped cause an overproduction and this held the price of milk below what it should have been.

With poor crops, scarcity of labor, high priced fertilizer and grain, the farmer has had to do some close figuring. Many of them have abandoned their farms while others have found that by weeding out their poorest cows and by the use of better feeds and labor saving machinery they could make nearly as much milk from less cows at a small profit. There is a more healthy demand for good pure bred stock by honest-to-goodness dirt farmers than ever before. They realize that it is either better stock or no stock at all and this we believe is as it should be.

When the time comes, and it will come, that every farmer is keeping books on his farm operations, then and not until then will we see the best times which we have had. For example: if a farmer finds that he is constantly losing money on his cows but is showing a good profit on poultry, he will keep hens and let some other farmer that is making a profit on cows keep them.

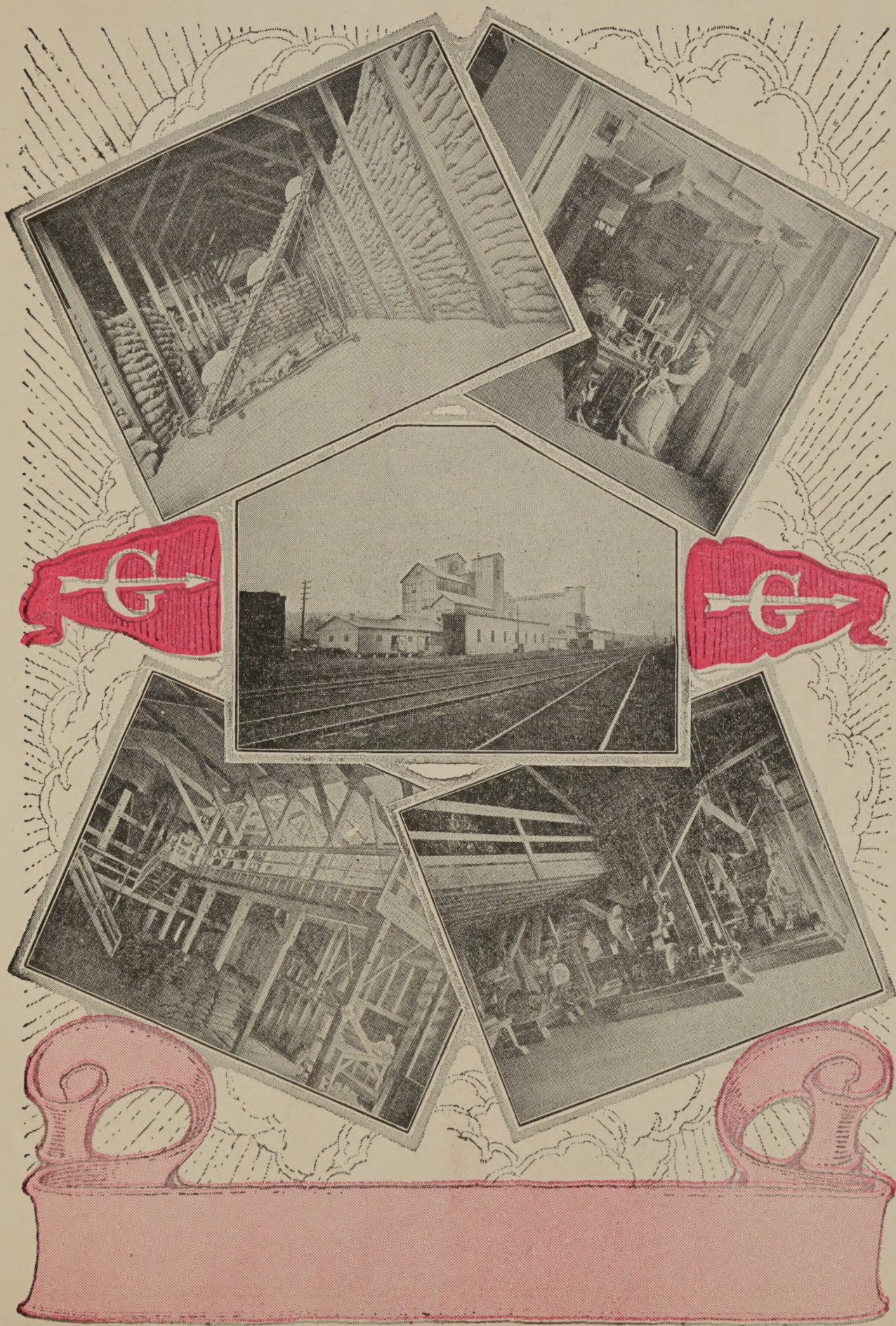
This is an age of specialization and in order to get the most for our labor we must do that which we can do best.

GRANDIN'S HOG FEED MAKES FAT HOGS

BREEDING GUIDE FOR FARM ANIMALS

Date of Service	Mare Will Foal	Cow Will Freshen	Lamb	Sow Will Farrow
Jan. 1	Dec. 6	Oct. 10	May 30	Apr. 22
Jan. 6	Dec. 11	Oct. 15	June 4	Apr. 27
Jan. 11	Dec. 16	Oct. 20	June 9	May 2
Jan. 16	Dec. 21	Oct. 25	June 14	May 7
Jan. 21	Dec. 25	Oct. 30	June 19	May 12
Jan. 26	Dec. 31	Nov. 4	June 24	May 17
Jan. 31	Jan. 5	Nov. 9	June 29	May 22
Feb. 5	Jan. 10	Nov. 14	July 4	May 27
Feb. 10	Jan. 15	Nov. 19	July 9	June 1
Feb. 15	Jan. 20	Nov. 24	July 14	June 6
Feb. 20	Jan. 25	Nov. 29	July 19	June 11
Feb. 25	Jan. 30	Dec. 4	July 24	June 16
Mar. 2	Feb. 4	Dec. 9	July 29	June 21
Mar. 7	Feb. 9	Dec. 14	Aug. 3	June 26
Mar. 12	Feb. 14	Dec. 19	Aug. 8	July 1
Mar. 17	Feb. 19	Dec. 24	Aug. 13	July 6
Mar. 22	Feb. 24	Dec. 29	Aug. 18	July 11
Mar. 27	Mar. 1	Jan. 3	Aug. 23	July 16
Apr. 1	Mar. 6	Jan. 8	Aug. 28	July 21
Apr. 6	Mar. 11	Jan. 13	Sept. 2	July 26
Apr. 11	Mar. 16	Jan. 18	Sept. 7	July 31
Apr. 16	Mar. 21	Jan. 23	Sept. 12	Aug. 5
Apr. 21	Mar. 26	Jan. 28	Sept. 17	Aug. 10
Apr. 26	Mar. 31	Feb. 2	Sept. 22	Aug. 15
May 1	Apr. 5	Feb. 7	Sept. 27	Aug. 20
May 6	Apr. 10	Feb. 12	Oct. 2	Aug. 25
May 11	Apr. 15	Feb. 17	Oct. 7	Aug. 30
May 16	Apr. 20	Feb. 22	Oct. 12	Sept. 4
May 21	Apr. 25	Feb. 27	Oct. 17	Sept. 9
May 26	Apr. 30	Mar. 4	Oct. 22	Sept. 14
May 31	May 5	Mar. 9	Oct. 27	Sept. 19
June 5	May 10	Mar. 14	Nov. 1	Sept. 24
June 10	May 15	Mar. 19	Nov. 6	Sept. 29
June 15	May 20	Mar. 24	Nov. 11	Oct. 4
June 20	May 25	Mar. 29	Nov. 16	Oct. 9
June 25	May 30	Apr. 3	Nov. 21	Oct. 14
June 30	June 4	Apr. 8	Nov. 26	Oct. 19
July 5	June 9	Apr. 13	Dec. 1	Oct. 24
July 10	June 14	Apr. 18	Dec. 6	Oct. 29
July 15	June 19	Apr. 23	Dec. 11	Nov. 3
July 20	June 24	Apr. 28	Dec. 16	Nov. 8
July 25	June 29	May 3	Dec. 21	Nov. 13
July 30	July 4	May 8	Dec. 26	Nov. 18
Aug. 4	July 9	May 13	Dec. 31	Nov. 23
Aug. 9	July 14	May 18	Jan. 5	Nov. 28
Aug. 14	July 19	May 23	Jan. 10	Dec. 3
Aug. 19	July 24	May 28	Jan. 15	Dec. 8
Aug. 24	July 29	June 2	Jan. 20	Dec. 13
Aug. 29	Aug. 3	June 7	Jan. 25	Dec. 18
Sept. 3	Aug. 8	June 12	Jan. 30	Dec. 23
Sept. 8	Aug. 13	June 17	Feb. 4	Dec. 28
Sept. 13	Aug. 18	June 22	Feb. 9	Jan. 2
Sept. 18	Aug. 23	June 27	Feb. 14	Jan. 7
Sept. 23	Aug. 28	July 2	Feb. 19	Jan. 12
Sept. 28	Sept. 2	July 7	Feb. 24	Jan. 17
Oct. 3	Sept. 7	July 12	Mar. 1	Jan. 22
Oct. 8	Sept. 12	July 17	Mar. 6	Jan. 27
Oct. 13	Sept. 17	July 22	Mar. 11	Feb. 1
Oct. 18	Sept. 22	July 27	Mar. 16	Feb. 6
Oct. 23	Sept. 27	Aug. 1	Mar. 21	Feb. 11
Oct. 28	Oct. 2	Aug. 6	Mar. 26	Feb. 16
Nov. 2	Oct. 7	Aug. 11	Mar. 31	Feb. 21
Nov. 7	Oct. 12	Aug. 16	Apr. 5	Feb. 26
Nov. 12	Oct. 17	Aug. 21	Apr. 10	Mar. 3
Nov. 17	Oct. 22	Aug. 26	Apr. 15	Mar. 8
Nov. 22	Oct. 27	Aug. 31	Apr. 20	Mar. 13
Nov. 27	Oct. 31	Sept. 5	Apr. 25	Mar. 18
Dec. 2	Nov. 6	Sept. 10	Apr. 30	Mar. 23
Dec. 7	Nov. 11	Sept. 15	May 5	Mar. 28
Dec. 12	Nov. 16	Sept. 20	May 10	Apr. 2
Dec. 17	Nov. 21	Sept. 25	May 15	Apr. 7
Dec. 22	Nov. 26	Sept. 30	May 20	Apr. 12
Dec. 27	Dec. 1	Oct. 5	May 25	Apr. 17
Dec. 31	Dec. 5	Oct. 9	May 30	Apr. 21

HORSES:	Periods: 48½ weeks or 340 days.	Extremes: 307 and 412 days.
CATTLE:	Periods: 40½ weeks or 283 days.	Extremes: 240 and 311 days.
SHEEP:	Periods: 22 weeks or 150 days.	Extremes: 146 and 157 days.
SWINE:	Periods: 16 weeks or 112 days.	Extremes: 109 and 120 days.



The Home of Grandin's Red Flag Feeds
D.H. GRANDIN MILLING COMPANY, JAMESTOWN, N.Y.

